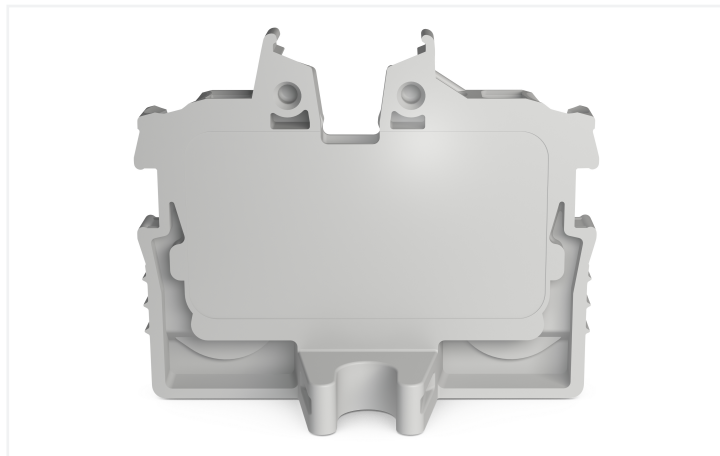
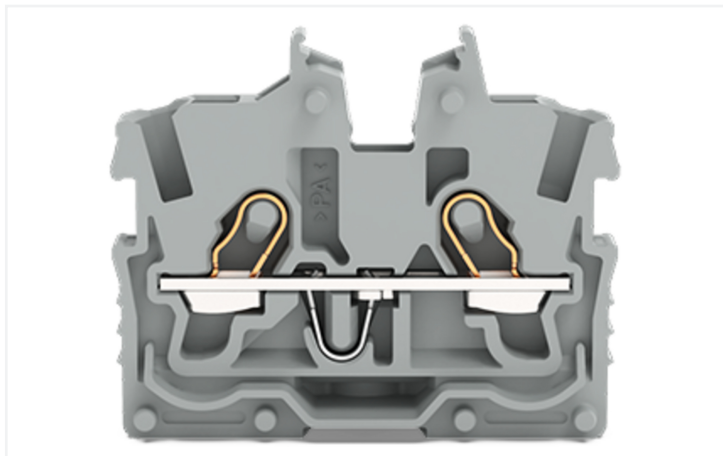


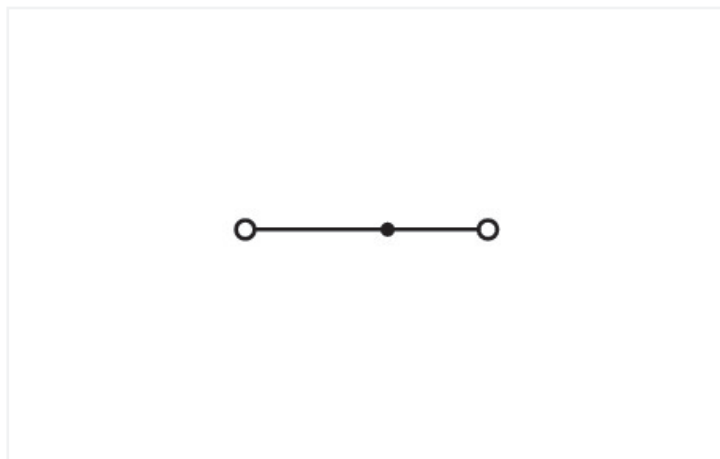
## Data Sheet | Item Number: 2050-301

2-conductor miniature through terminal block; with operating slots; 1 mm<sup>2</sup>; End terminal block with mounting flange; side and center marking; with test port; Push-in CAGE CLAMP®; 1,00 mm<sup>2</sup>; gray

<https://www.wago.com/2050-301>

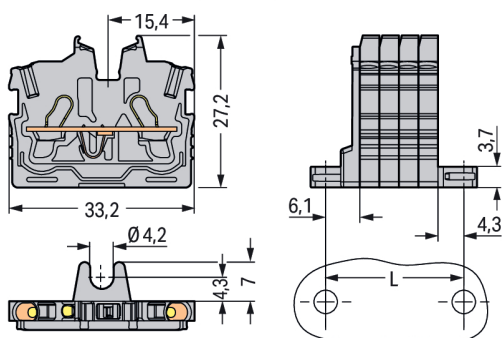


Color: ■ gray



Similar to illustration

Modular Terminal Blocks and Terminal Strips with Mounting Flanges  
 $L = (\text{Pole no.} \times 3,5 \text{ mm}) + 4,3 \text{ mm} + 6,1 \text{ mm}$





Through terminal block, 2050 Series, gray

This through terminal block (item number 2050-301) is designed for easy and secure connections. Whether in industrial or building applications, our rail-mount through terminal blocks are the perfect solution to quickly and securely connect electrical conductors. Depending on the model, you can use them for either typical through-wiring or potential distribution. Rated current and voltage are key factors to consider when selecting a mini rail-mount terminal block, as they indicate how the product can be used. This product has a rated voltage of 500 V and a rated current of 13.5 A. Conductors can only be connected to this through terminal block if their strip length is between 9 mm and 11 mm. This product features conductor terminals and utilizes Push-in CAGE CLAMP®. Push-in CAGE CLAMP® connection technology is ideal for connecting all conductor types. It allows direct insertion of both solid and fine-stranded conductors with ferrules without needing to use any tools—all thanks to its pluggable design. Depending on the type of conductor, this through terminal block is designed for conductor cross sections ranging from 0.14 mm² to 1.5 mm². It comes with one level and two clamping points for connecting a single potential. The gray housing is made of polyamide (PA66) for insulation. An operating tool is used to operate this mini rail-mount terminal block. Our TOPJOB® S rail-mount terminal blocks offer more than just secure electrical connections in all kinds of industrial applications and modern building installations. They also offer the perfect solution for every application: lever, push-button, or operating slot. You can connect copper conductors via front-entry wiring. The one jumper slot enables potential distribution to other clamping points. This product is designed for specific Ex applications (please refer to the product datasheet).

Electrical data				
Ratings per		IEC/EN 60998-2-2		
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Nominal voltage	500 V	-	-	
Rated surge voltage	6 kV	-	-	
Rated current	13.5 A	-	-	
Current at conductor cross-section (max.) mm²	17.5 A	-	-	
Approvals per		CSA 22.2 No 158		
Use group	B	C	D	
Rated voltage	300 V	300 V	-	
Rated current	10 A	10 A	-	
Ex information				
Reference hazardous areas	See “Downloads – Documentation – Additional Information: Technical Section; Technical Explanations”			
Ratings per	ATEX: PTB 19 ATEX 1019 U / IECEx: PTB 19.0050U (Ex eb IIC Gb)			
Rated voltage EN (Ex e II)	352 V			
Rated current (Ex e II)	13.5 A			
Rated current (Ex e II) with jumper	12 A			
Power Loss				
Power loss, per pole (potential)	0.4338 W			
Rated current I <sub>N</sub> for specified power loss	13.5 A			
Resistance value for specified, current-dependent power loss	0.00238 Ω			
Connection data				
Clamping units	2			
Total number of potentials	1			
Number of levels	1			
Number of jumper slots	1			
Connection 1				
Connection technology	Push-in CAGE CLAMP®			
Actuation type	Operating tool			
Connectable conductor materials	Copper			
Nominal cross-section	1 mm²			
Solid conductor	0.14 ... 1.5 mm² / 24 ... 16 AWG			
Solid conductor; push-in termination	0.5 ... 1.5 mm² / 20 ... 16 AWG			
Fine-stranded conductor	0.14 ... 1.5 mm² / 24 ... 16 AWG			
Fine-stranded conductor; with insulated ferrule	0.14 ... 1 mm² / 24 ... 18 AWG			
Fine-stranded conductor; with uninsulated ferrule	0.14 ... 1 mm² / 24 ... 18 AWG			
Fine-stranded conductor; with ferrule; push-in termination	0.5 ... 1 mm² / 20 ... 18 AWG			



Connection 1	
Note (conductor cross-section)	Depending on the conductor characteristic, a conductor with a smaller cross-section can also be inserted via push-in termination.
Strip length	9 ... 11 mm / 0.35 ... 0.43 inches
Wiring direction	Front-entry wiring

Physical data	
Width	3.5 mm / 0.138 inches
Height from the surface	27.2 mm / 1.071 inches
Depth	33.2 mm / 1.307 inches

Mechanical data	
Mounting type	Mounting flange
Marking level	Center/side marking

Material data	
Note (material data)	<a href="#">Information on material specifications can be found here</a>
Color	gray
Material group	I
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0 MJ
Weight	2.5 g

Environmental requirements	
Processing temperature	-35 ... +85 °C
Continuous operating temperature	-60 ... +105 °C

Commercial data	
PU (SPU)	100 pcs
Packaging type	Box
Country of origin	IN
GTIN	4055143968645
Customs tariff number	85369010000

Product classification	
UNSPSC	39121410
ETIM 9.0	EC001284
ETIM 8.0	EC001284
ECCN	NO US CLASSIFICATION



Environmental Product Compliance	
RoHS Compliance Status	Compliant,No Exemption

Approvals / Certificates

General approvals			Declarations of conformity and manufacturer's declarations		
Approval	Standard	Certificate Name	Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 60998	NTR NL 7840	ATEX-Attestation of Con- formity WAGO GmbH & Co. KG	-	-
CSA CSA	C22.2 No. 158	80034182	EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
cURus Underwriters Laboratories Inc.	UL 1059	E45172	UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
KEMA/KEUR DEKRA Certification B.V.	EN 60998	71-113957			

Approvals for hazardous areas

Approval	Standard	Certificate Name
AEx Underwriters Laboratories Inc.	UL 60079	E185892 (AEx eb IIC resp. Ex eb IIC)
ATEX Physikalisch Technische Bundesanstalt	EN IEC 60079-0	PTB 19 ATEX 1019 U (II 2G Ex eb IIC Gb or I M 2 Ex eb I Mb)
CCC CNEX	GB/T 3836.3	2020312313000289 (Ex eb IIC Gb, Ex eb I Mb)
IECEx Physikalisch Technische Bundesanstalt	IEC 60079	IECEx PTB 19.0050U (Ex eb IIC Gb or EX eb I Mb)
INMETRO TÜV Rheinland do Brasil Ltda.	IEC 60079	TÜV 22.0014 U

Downloads

Environmental Product Compliance	
Compliance Search	
Environmental Product Compliance 2050-301	



CAD/CAE-Data	
CAD data	CAE data
2D/3D Models 2050-301	EPLAN Data Portal 2050-301
	WSCAD Universe 2050-301
	ZUKEN Portal 2050-301

1 Compatible Products

1.1 System counterpart

1.1.1 Through terminal block



**Item No.: 2050-321**  
2-conductor miniature through terminal block; with operating slots; 1 mm<sup>2</sup>; Center terminal block without snap-in mounting foot, without mounting flange; side and center marking; with test port; Push-in CA-GE CLAMP®; 1,00 mm<sup>2</sup>; gray

1.2 Required Accessories

1.2.1 End plate

1.2.1.1 End plate



**Item No.: 2050-381**  
End plate; with fixing flange; 1.3 mm thick; gray

1.3 Optional Accessories

1.3.1 Ferrule

1.3.1.1 Ferrule



**Item No.: 216-241**  
Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white

**Item No.: 216-242**  
Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray

**Item No.: 216-243**  
Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red



1.3.2 Installation

1.3.2.1 Mounting accessories



[Item No.: 209-137](#)  
Mounting adapter; can be used as end stop; 6.5 mm wide; gray

1.3.3 Jumper

1.3.3.1 Jumper



[Item No.: 2000-406/020-000](#)  
Delta jumper; insulated; light gray



[Item No.: 2000-410/000-006](#)  
Jumper; 10-way; insulated; blue



[Item No.: 2000-410](#)  
Jumper; 10-way; insulated; light gray



[Item No.: 2000-410/000-005](#)  
Jumper; 10-way; insulated; red



[Item No.: 2000-402/000-006](#)  
Jumper; 2-way; insulated; blue



[Item No.: 2000-402](#)  
Jumper; 2-way; insulated; light gray



[Item No.: 2000-402/000-005](#)  
Jumper; 2-way; insulated; red



[Item No.: 2000-402/000-018](#)  
Jumper; 2-way; insulated; yellow-green



[Item No.: 2000-403/000-006](#)  
Jumper; 3-way; insulated; blue



[Item No.: 2000-403](#)  
Jumper; 3-way; insulated; light gray



[Item No.: 2000-403/000-005](#)  
Jumper; 3-way; insulated; red



[Item No.: 2000-404/000-006](#)  
Jumper; 4-way; insulated; blue



[Item No.: 2000-404](#)  
Jumper; 4-way; insulated; light gray



[Item No.: 2000-404/000-005](#)  
Jumper; 4-way; insulated; red



[Item No.: 2000-405/000-006](#)  
Jumper; 5-way; insulated; blue



[Item No.: 2000-405](#)  
Jumper; 5-way; insulated; light gray



[Item No.: 2000-405/000-005](#)  
Jumper; 5-way; insulated; red



[Item No.: 2000-406/000-006](#)  
Jumper; 6-way; insulated; blue



[Item No.: 2000-406](#)  
Jumper; 6-way; insulated; light gray



[Item No.: 2000-406/000-005](#)  
Jumper; 6-way; insulated; red



[Item No.: 2000-407/000-006](#)  
Jumper; 7-way; insulated; blue



[Item No.: 2000-407](#)  
Jumper; 7-way; insulated; light gray



[Item No.: 2000-407/000-005](#)  
Jumper; 7-way; insulated; red



[Item No.: 2000-408/000-006](#)  
Jumper; 8-way; insulated; blue



[Item No.: 2000-408](#)  
Jumper; 8-way; insulated; light gray



[Item No.: 2000-408/000-005](#)  
Jumper; 8-way; insulated; red



[Item No.: 2000-409/000-006](#)  
Jumper; 9-way; insulated; blue



[Item No.: 2000-409](#)  
Jumper; 9-way; insulated; light gray



[Item No.: 2000-409/000-005](#)  
Jumper; 9-way; insulated; red



[Item No.: 2000-440](#)  
Jumper; from 1 to 10; insulated; light gray



[Item No.: 2000-433/000-006](#)  
Jumper; from 1 to 3; insulated; blue



[Item No.: 2000-433](#)  
Jumper; from 1 to 3; insulated; light gray



[Item No.: 2000-433/000-005](#)  
Jumper; from 1 to 3; insulated; red



[Item No.: 2000-434](#)  
Jumper; from 1 to 4; insulated; light gray



[Item No.: 2000-435](#)  
Jumper; from 1 to 5; insulated; light gray



[Item No.: 2000-436](#)  
Jumper; from 1 to 6; insulated; light gray



[Item No.: 2000-437](#)  
Jumper; from 1 to 7; insulated; light gray



[Item No.: 2000-438](#)  
Jumper; from 1 to 8; insulated; light gray



[Item No.: 2000-439](#)  
Jumper; from 1 to 9; insulated; light gray



[Item No.: 2000-405/011-000](#)  
Star point jumper; 3-way; insulated; light gray

1.3.4 Marking

1.3.4.1 Group marker carrier



**Item No.: 2009-191**  
Group marker carrier; gray

1.3.4.2 Marker



**Item No.: 793-3501**  
WMB marking card; as card; plain; snap-on type; white



**Item No.: 2009-113/000-006**  
WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; blue



**Item No.: 2009-113/000-007**  
WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; gray



**Item No.: 2009-113/000-023**  
WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; green



**Item No.: 2009-113/000-017**  
WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; light green



**Item No.: 2009-113/000-012**  
WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; orange



**Item No.: 2009-113/000-005**  
WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; red



**Item No.: 2009-113/000-024**  
WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; violet



**Item No.: 2009-113**  
WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; white



**Item No.: 2009-113/000-002**  
WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; yellow

1.3.4.3 Marking strip



**Item No.: 2009-110**  
Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white

1.3.5 Protective warning marker

1.3.5.1 Cover



**Item No.: 2000-115**  
Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow

1.3.6 Push-in type wire jumper

1.3.6.1 Jumper



**Item No.: 2009-404**  
Push-in type wire jumper; 0.75 mm²; insulated; 110 mm long; gray



**Item No.: 2009-406**  
Push-in type wire jumper; 0.75 mm²; insulated; 250 mm long; gray



**Item No.: 2009-402**  
Push-in type wire jumper; 0.75 mm²; insulated; 60 mm long; gray

1.3.7 Test and measurement

1.3.7.1 Testing accessories



**Item No.: 2009-174**  
Test plug adapter; for 4 mm Ø test plugs; for testing TOPJOB®S rail-mounted terminal blocks; gray



**Item No.: 210-136**  
Test plug; 2 mm Ø; with 500 mm cable; red



**Item No.: 2009-182**  
Testing tap; for max. 2.5 mm<sup>2</sup>; tool-free connection for individual test wires 0.08 - 2.5 mm; gray

1.3.8 Tool

1.3.8.1 Operating tool



**Item No.: 210-719**  
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft



**Item No.: 210-648**  
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; angled; short

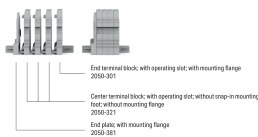


**Item No.: 210-647**  
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; multicoloured

Installation Notes

Installation

Example of a 4-pole terminal strip, with operating slots, with mounting flange



Conductor termination



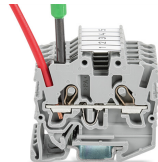
Insert solid conductors via push-in termination.



Insert ferruled conductors via push-in termination.

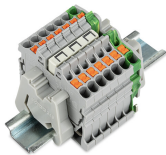


Insert fine-stranded conductors via operating tool.

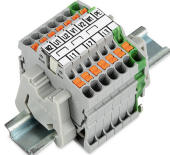


Remove all conductors via operating tool.

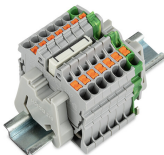
Commoning



Insert a delta jumper and push down until it hits the backstop (example shows terminal blocks with push-buttons).



Marking strip (Item No. 2009-110) inserted in the marking slot with jumper symbols of the inserted jumper (delta jumper) (example shows terminal blocks with push-buttons)



Insert a star point jumper and push down until it hits the backstop (example shows terminal blocks with push-buttons).



Marking strip (Item No. 2009-110) inserted in the marking slot with jumper symbols of the inserted jumper (2000-405/011-000 Delta Jumper) (example shows terminal blocks with push-buttons)

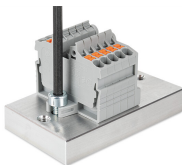


Testing

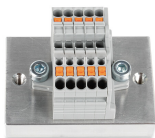


Testing with a 2 mm Ø 210-136 Test Plug (max. 42 V).

Installation



Mounting and securing a terminal strip directly to the plate via screw-type flanges (example shows terminal blocks with push-buttons).



Terminal strip; with mounting flanges; screw mounting (example shows terminal blocks with push-buttons)

Marking



Snapping a marking strip into the marker slot.



Snapping a marking strip (Item No. 2009-110) into a marker slot.